income, geographic region, insurance coverage, year of first admission, diabetes-care variables such as foot checks and diet modification, and severity factors, such as number of diagnoses and whether any procedure was performed during the first admission. **RESULTS:** Over the years 1999 to 2009, out of 7.27 million patients with a diabetes-related hospital admission, 37.62% had a diabetes-related readmission. Patients in the Midwest compared to patients in the West were more likely to be readmitted (OR=2.13; 95% CI: 2.12-2.14). Patients in the higher income group were more likely to be readmitted than those in the lower income group (OR=2.13; 95% CI: 2.12-2.16). Patients who did not follow the recommended diet for diabetes were more likely to be readmitted than those who followed the recommended diet for diabetes (OR=1.45; 95% CI: 1.43-1.46). Severity indicators also had statistically significant coefficients(p-value<0.0001). **CONCLUSIONS:** Diabetes treatment without diet modification, regional disparities and income are significant predictors of increased hospital readmissions. Policy interventions should be planned accordingly and diet modification should be stressed in clinical practice to decrease the hospital readmission rate.

PDB104

ECONOMIC AND CLINICAL ANALYSIS OF A MEDICATION MANAGEMENT PROGRAM TARGETING PATIENTS WITH UNCONTROLLED DIABETES: A TWO-YEAR ANALYSIS

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OBJECTIVES: The purpose of the study was to assess the clinical and economic impact of a pharmacist-led medication management program (MMP) implemented at a regional health plan. Diabetes control (i.e. A1C measures) and healthcare costs were compared between intervention and control patients with two years of follow-up. **METHODS:** Eligible participants in the MMP met the following criteria: 1) diagnosed with diabetes for at least one-year; 2) an A1C level>7.5% at baseline; 3) at least six months of enrollment prior to baseline; 4) continuous enrollment throughout the study interval; (5) 18-63 years of age; and; 6) at least one diabetic medication claim prior to and after enrollment. The enrollees and controls were matched 1:1 by age, gender, baseline A1C, and Charlson comorbidity index. Patients were required to participate in monthly follow-up visits with a pharmacist; in exchange, they received copay waivers for all diabetic medications and supplies. To assess A1C changes, paired t-tests were used within groups and independent t-tests were used for pairwise differences. Cost data were bootstrapped to determine significance. **RESULTS:** A total of 139 patients met inclusion criteria with at least two years of follow-up. MMP patients had an A1C decrease of 1.16 while control patients had a decrease of 0.73 (P=0.03). Average per member per month (PMPM) costs increased by 17% and 69% in the MMP and control groups, respectively. Cost increase in the MMP group was mainly attributable to prescription and outpatient costs; however, this was largely offset by a 64% decrease in inpatient costs (95% CI, -$2844.29 to -$582.04). **CONCLUSIONS:** Two years of follow-up revealed MMP patients significantly improved clinical measures compared to the matched control group. Overall, costs in both groups increased but the extent of cost increases were much greater in the control group. The significant decrease in inpatient costs highlights an opportunity for savings long-term.

PDB105

PAYOR AND PRESCRIBER FEASIBILITY ASSESSMENT OF A PHARMACY BENEFIT MANAGEMENT (PBM) DIABETES PROGRAM UTILIZING PHARMACIST-ADVISED SELF-ADJUSTED BASAL INSULIN

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OBJECTIVES: Assess feasibility of instituting a PBM program engaging pharmacists as prescriber-extenders for care of patients with type 2 diabetes mellitus (T2DM). **METHODS:** Surveys included 146 payors (15 questions) and 2000 T2DM prescribers (Internal Medicine [IM], Endocrinologists/Diabetes specialists [ENDO/DS] and Family practitioners [FP]; (30 questions). After a description of a pharmacist-managed basal insulin initiation/intensification program, the survey evaluated interest and importance of program components including: adherence reports, format/content/frequency of reports, drug spend, care/management of T2DM, access to care, patient education/counseling, pharmacist training, and additional management tools. Statistical comparisons were done by chi-square or Wilcoxon test analysis. **RESULTS:** Payor response rate was 13%. They included large (approx 1M), young (age 35±4) membership in the Northeast. They believe prescribers will be interested in receiving T2DM medication adherence reports (100%) and participating in the program (68%). Importance was assigned to increased access of care (95%) and management of patients (100%), but less-so on pharmacist training (53%). The prescriber response rate was 7%: 70% ENDO/DS and 29% IM/FP. Compared to ENDO/DS, more IM/FP believe the program would improve overall care (64% vs 38%), increase patient education/counseling (57% vs 33%), and wanted T2DM medication adherence reports (76% vs 40%) [all p<0.05]. More IM/FP (43%) than ENDO/DS (19%, p<0.05) state they would refer patients to the program. For most prescribers, financial compensation was not a driving factor, while contact of pharmacist/patient contact/dialog was important. Approximately 60% of IM/FP and 40% of ENDO/DS were willing to share blood pressure, lipid, and hemoglobin A1C values with pharmacists. **CONCLUSIONS:** Payors are interested in improving care and management of T2DM and endorse a PBM-based pharmacist physician-extender program. Primary care prescribers were more supportive of the program, willing to share data, and likely to refer patients than Endocrinologists/Diabetes specialists. Considering response bias, overall, the program is feasible and has been implemented.

PDB106

IMPACT OF LONG ACTING INSULIN AGENTS ON HEALTH RELATED QUALITY OF LIFE (HRQOL), HEALTH CARE EXPENDITURES AND UTILIZATION

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OBJECTIVES: Long acting insulin agents (LG) have shown several advantages compared to other anti-diabetic therapies in treatment of diabetes, however their real world impact at the national level is unknown. The objectives of the study were to assess the impact of LG on HRQoL, health care expenditures and utilization among diabetic patients receiving insulin agents. **METHODS:** A longitudinal study was conducted including diabetic patients ≥ 18 years receiving insulin agents using data from 2006-2008 Medical Expenditures Panel Survey (MEPS). We compared diabetic patients receiving LG (Insulin glargine and Insulin detemir) to those receiving other insulin agents (OG). HRQoL was assessed using Short Form 36 (SF-36) survey [Physical component score (PCS) and Mental component score (MCS)], while expenditures and utilization were evaluated in terms of ambulatory visits, emergency room visits, inpatient stays and prescription drugs. Multivariate linear regression, negative binomial regression and two-part models were used for assessing impact on HRQoL, expenditures and utilization as appropriate. **RESULTS:** Out of 7.1 million diabetic patients receiving insulin agents, 47.2% (CI:46.1-48.3%) received LG. There was no statistical significant improvement in the PCS and MCS between these groups, however, there was a favorable trend on PCS (2.6,CI:(-2.2)-7.3) in patients receiving LG. Patients receiving LG showed a 43% (CI:4.9-55.5%) reduction in total health care expenditures, with 43% reduction in ambulatory visits (CI:4.9-66.4%), and 49% reduction in inpatient stays (CI:3.9-73.3%) as compared to OG among patients having expenditures. Patients receiving LG were associated with reduced ambulatory care visits (0.68,CI:0.47-0.98), prescription drug count (0.48,CI: 0.30-0.89) and inpatient days (0.73,CI:0.58-0.91) as compared to OG among patients having utilization. **CONCLUSIONS:** Compared to OG, LG showed improvement in HRQoL and were associated with lower health care expenditures and utilization. Hence, LG can play an important role in overcoming the barrier towards insulin use and thereby help in effectively treating diabetes mellitus patients.

PDB107

PATIENT CHARACTERISTICS AND OUTCOMES AMONG INDIVIDUALS WITH TYPE 2 DIABETES: A COMPARISON BASED UPON ADHERENCE

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OBJECTIVES: Compare patient characteristics, medication use, diabetes-related charges, and resource utilization between patients with Type 2 diabetes (T2DM) based upon classification as "adherent" or "non-adherent." **METHODS:** Data were obtained from the i3 inVision™ databases from January 1, 2006 through June 30, 2010. The analyses focused on patients who initiated therapy on antidiabetic medication(s) and were followed for 2 years post initiation (N=48,592). Patients were categorized as being adherent (N=17,266) or non-adherent (N=31,000) based upon a medication possession ratio (MPR) threshold of 0.80. The analyses are descriptive in nature. **RESULTS:** The mean age of patients in this study was 53 years, with 54% of the population male and 59% residing in the Southern region of the US. Adherent patients were less likely to augment their intent-to-treat (ITT) medication(s) (6% vs. 25%; P<0.0001), switch medications (2% vs. 16%; P<0.0001) or have a gap in therapy of at least 60 days (9% vs. 47%; P<0.0001). Adherent patients were found to be less likely to be hospitalized in the post-period (17% vs. 21%; P<0.0001). Despite significantly higher diabetes-related drug charges ($1690 vs. $1232; P<0.0001), adherent patients had significantly lower total diabetes-related costs ($6592 vs. $6,863; P=0.0221). For a subset of patients who had a valid HbA1c measurement in both the pre and post-period (N=7862), results revealed that adherent patients had a significantly larger reduction in their HbA1c values (-0.72 vs. -0.63; P=0.0333) despite having a significantly lower HbA1c value prior to initiation on therapy (7.58 vs. 7.95; P<0.0001). Non-adherent patients who discontinued their ITT medication(s) (N=288), however, had a mean HbA1c (6.32; SD=1.30) which is below the recommended target level for glycemic control, and suggests a valid clinical reason for discontinuation. **CONCLUSIONS:** Patient characteristics, treatment patterns, and outcomes differ significantly between adherent and non-adherent patients.

DIABETES/ENDOCRINE DISORDERS – Research on Methods

PDB109

COMPARATIVE PERFORMANCE OF COMORBIDITY MEASURES TO RISK-ADJUST HEALTH RELATED QUALITY OF LIFE IN DIABETES PATIENTS

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OBJECTIVES: To compare the performance of Health-related Quality of Life Comorbidity Index (HRQL-CI), D'Hoore Comorbidity Index, Elixhauser Comorbidity Measures, and Disease Count in risk-adjusting HRQL in diabetes patients. **METHODS:** The 2008 Medical Expenditure Panel Survey (MEPS) including adults ≥18 years with diagnosis of diabetes (ICD9 = 250) was used to evaluate the performance of four comorbidity measures for risk-adjusting Short Form-12 Physical Component Score (PCS) and Mental Component Score (MCS). The comorbidity measures included D'Hoore adaptation of Charlson comorbidity index (identified using 3 digit ICD9 codes), Elixhauser Comorbidity Measures (identified using 3 digit ICD9 codes), HRQL-CI (identified using Agency for Healthcare Research and Quality Clinical